

ARC920000101US1  
09/768,458REMARKS

This amendment is in response to the Examiner's Office Action dated 7/14/2004. ~~This amendment should obviate outstanding issues and make the remaining claims allowable.~~ Reconsideration of this application is respectfully requested in view of the foregoing amendment and the remarks that follow.

STATUS OF CLAIMS

Claims 1-13 and 15-33 are pending.

Claims 1, 2, 5-10, 12, 15-17, 19-28, 32, and 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by DeMarcken (USP 6,381,578).

Claims 3, 4, 11, 13, 18, and 29-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over DeMarcken.

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention provides for a system and a method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule or services (time, location). The present invention automatically identifies windows of opportunity (time, physical location), and once such a window of opportunity is detected, the invention determines whether people are affected directly from the change of a schedule. This information is then used by service providers to act quickly, in order to enhance sales. The present invention does not need to know who the affected people are, nor their preferences (profile data). Heuristics to determine a window of opportunity are based only on schedule changes, which are associated with a rule database. Thus, the present system utilizes network-

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based technologies and communications to generate or increase additional sales for service providers.

As an example, consider a train, which is scheduled to leave at 7:00 AM, but due to unknown circumstances the schedule is changed to 7:45 AM. There is a good chance that there are people who use this train to commute to work, and were not informed in time about this unexpected change in a scheduled event. Most of these people probably will decide to wait there until 7:45 AM, instead of investigating alternatives. The present invention's system and method identifies such unexpected events as "window of opportunities". This information is then used by service providers to deliver useful services to these waiting people in order to help them satisfy their demands or utilize their blocked time. Hence, service providers like food delivery services, newspaper delivery services, taxicab services, etc., utilize an opportunistic approach to deliver useful services for these waiting people in order to help meet their demands (e.g., by delivering food, etc.) or utilize their blocked time (e.g., by selling a magazine, providing entertainment, etc.)

#### REJECTIONS UNDER U.S.C. §102(e)

The examiner has rejected claims 1, 2, 5-10, 12, 15-17, 19-28, 32, and 33 under U.S.C. §102(e) as being anticipated by the patent to DeMarcken (6,381,578). To be properly rejected under §102, the cited reference must provide each and every claim element of a system/apparatus claim, or each and every step of a method claim. Applicants contend that the DeMarcken reference either explicitly or implicitly fails to provide for many of the claim limitations as required by claims 1, 2, 5-10, 12, 15-17, 19-28, 32, and 33.

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Applicants wish to emphasize that it is the duty of the examiner to specifically point out limitations with respect to each and every claim element such that applicants' are aware of how the examiner is applying a reference in a rejection. In pages 2-3 of the office action of 07/14/2004, the examiner has rejected claims 1, 2, 5-10, 12, 15-17, 19-28, 32, and 33, but only seems to address claim elements of independent claim 1. Limitations with respect to independent claims 15, 20, and 33 and dependent claims 2, 5-10, 12, 16-17, 19, 21-28, and 32 are not addressed anywhere in the office action of 07/14/2004. Applicants contend that the examiner has failed to clearly identify specific limitations of each and every claim that is rejected as per M.P.E.P guidelines as per §1.104(c)(2) of Title 37 of the Code of Federal Regulations and section 707 of the M.P.E.P, which explicitly states that "the particular part relied on must be designated" and "the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified". Hence, due to the lack of specificity on the part of the examiner, applicants have responded to independent claims 15, 20, and 33 and dependent claims 2, 5-10, 12, 16-17, 19, 21-28, and 32 in view of the DeMarcken reference in its entirety.

DeMarcken provides for an airline travel planning system that includes a server computer 12 executing a server process including a search process to search for set of pricing solutions in accordance with at least one destination and at least one origin, wherein the search process represents the set of pricing solutions in the form of a directed acyclic graph. The system also includes a client computer executing a client process on the set of pricing solutions. The client process has a manipulation process that manipulates the set of pricing solutions in response to user preferences. Several processes are described including a process responsive to user preferences and to a set of pricing solutions that provides pricing solutions sorted by said user preference, a process that sorts the set of pricing solutions to produce a subset of said set of

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pricing solutions in accordance with user specified preferences, and a process that prunes from the directed acyclic graph nodes that are no longer contained within the subset of set of pricing solutions.

Claim 1 of applicants' invention, on the other hand, provides for a system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service. The system of applicants' claim 1 comprises an event retriever, an event observer, and a window of opportunity detector. The event retriever generates an event pair which comprises a target value and an actual value associated with the schedule of services. The event observer receives the event pairs from the event retriever, calculates the difference between the actual and target value, and based on one or more rules from a first set of rules, identifies and notifies a window of opportunity detector regarding potential windows of opportunities, wherein each potential window of opportunity defines a time period of customer inactivity. The window of opportunity detector receives potential windows of opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches the detected windows of opportunities with service providers for the purposes of providing a new product or a service separate from said scheduled service.

The examiner has equated the event retriever of claim 1 to the server computer 12 of the '578 patent. The examiner has also cited column 3, lines 8-22 of the '578 patent as providing for the limitation of generating an event pair associated with a schedule of services. A closer reading of the citations, however, fails to provide for such limitations. For example, server computer 12 of the '578 patent merely provides for a server that (1) produces, for a travel request, sets of flights that can satisfy the request, and (2) determines a set of valid fares and links the set of valid

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fares to the sets of flights to form a pricing solution. In other words, DeMarcken's server 12 takes an input for a travel request, such as a travel request for a flight bound for Washington, D.C. from Boston, Mass., and identifies flights that satisfy this request. Next, DeMarcken's server 12 determines valid fares and links these fares to the identified flights bound for Washington, D.C. from Boston, Mass. It should, however, be noted that DeMarcken's server 12 does not disclose or suggest the generation of an event pair comprising a target value and an actual value. There is no teaching in DeMarcken's patent for server 12 to look at a target value (e.g., a time X that a train T is scheduled to arrive) and an actual value (e.g., a time Y that the train T is actually supposed to arrive) to generate an event pair (e.g., [X,Y]). As mentioned earlier, DeMarcken's server 12 merely identifies valid fares for a requested flight path. Therefore, applicants contend that the examiner's equation of server 12 of the DeMarcken reference with applicants' event retriever is erroneous.

Furthermore, the examiner has equated elements 20a and 20b of the DeMarcken's reference with the event observer of claim 1. A closer read of the DeMarcken patent, however, merely suggests that elements 20a and 20b are representative of a plurality of databases that store industry-standard information pertaining to travel. DeMarcken states that database 2a can store "published airline fares" and makes no mention of receiving event pairs, calculating a difference between an actual and a target value (based on a first set of rules), and notifying potential windows of opportunities to a window of opportunity detector, all limitations of claim 1.

Furthermore, the event observer identifies each window of opportunity based on "a period of customer inactivity" that is based on the difference in the actual value (e.g., a time Y that the train T is actually supposed to arrive) and the target value (e.g., a time X that a train T is

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scheduled to arrive) and a first set of rules. The examiner appears to have misunderstood the "customer inactivity" limitation and has erroneously equated this to "customer inquiry" that is disclosed in column 3, lines 42-62 of the DeMarcken patent. Applicants contend that the DeMarcken patent fails to address, or even suggest, identifying periods of customer inactivity and identifying windows of opportunities based on such identified inactivity.

The examiner also equates the first set of rules with the "ATPCO" recitation of the DeMarcken reference. ATPCO stands for Airline Tariff Publishing Company Database which contains airline fares and rules associated with assigning fares to a particular route (see column 3, lines 26-29). ATPCO, however, does not provide for identifying windows of opportunities based on a first set of rules and a calculated difference between an actual and target value associated with an event.

Furthermore, the examiner equates elements 30a-c of the DeMarcken reference with the window of opportunity detector of applicants' invention. Elements 30a-c of the DeMarcken reference represent clients, preferably smart clients, that are implemented via a computer. Elements 30a-c stores "a set of fares that are valid for a journey", with no recitation or suggestion of detecting windows of opportunities based on a period of customer inactivity.

The examiner also states that when a window of opportunity exists, the window of opportunity is matched with the service provider "for the purpose of providing airline pricing information and airline schedule information of a plurality of competing service providers in response to the customer's inquiry." As stated earlier, the examiner has misunderstood and erroneously equated the period of "customer inactivity" limitation with "customer inquiry".

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Furthermore, claim 1 teaches matching detected windows of opportunities with service providers for the purpose of "providing a new product or a service separate from said scheduled service" and not for the purpose of providing pricing and schedule information in response to a "customer inquiry". Therefore, applicants contend that the examiner's equation of databases 20a and 20b of the DeMarcken reference with applicants' event retriever and the examiner's equation of clients 30a-c with applicants' window of opportunity detector is erroneous.

Based on the arguments presented above, applicants contend that independent claim 1 cannot be anticipated nor be rendered obvious by the DeMarcken reference.

Applicants' independent claims 15 and 33 provide for a method and an article of manufacture which enhances sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service. The steps as implemented in claims 15 and 33 comprise: electronically acquiring service schedules of one or more service providers, detecting an unexpected change in said schedule, checking if potential customers are blocked due to said unexpected change in schedule wherein blocking defines a period of inactivity, detecting one or more potential windows of opportunities for sales to said potential customers, checking if service providers benefit from said detected potential windows of opportunities, and providing notification regarding said potential windows of opportunities to service providers who benefit from such information. The service providers, in claims 15 and 33, offer a new product or service separate from said scheduled service to said potential customer during the period of inactivity.

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Yet another limitation of independent claim 15 and 33 is that they require there be contact with the service providers. Specifically, claims 15 and 33 require the step of "providing notification regarding said potential windows of opportunities to service providers. DeMarcken, explicitly or implicitly, fails to teach any contact with the service providers, based on a calculated period of inactivity, as the ads/services provided are preprogrammed static advertisements.

Applicants' independent claim 20 provides for a method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services. The method of claim 20 comprises the steps of: extracting standardized event data (comprising an actual event value and a target value) from said travel service provider via a network, comparing (based on one or more rules from a set of first rules) the difference of said actual value and target value against a threshold value, detecting a window of opportunity based on one or more rules from a set of second rules, and distributing the window of opportunity information to service providers for enhancing said service provider's sales. If a window of opportunity is detected, the service providers offer the customer a new product or a new service that is different from the scheduled service.

A limitation of claim 20 is that windows of opportunities are detected based on a set of rules and are matched with service providers who then provide a new product or service that is different than the scheduled service. Another limitation of claim 20 is that it requires there be contact with service providers. Specifically, claim 20 requires the limitation of "distributing said window of opportunity information to the service providers". DeMarcken, explicitly or implicitly, fails to teach or render obvious the limitation of establishing contact with any of the service providers based on a calculated period of inactivity.

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The above-mentioned arguments for independent claim 1 substantially apply for independent claims 15, 20, and 33. The above-mentioned arguments also substantially apply to dependent claims 2, 5-10, 12, 16-17, 19, 21-28, and 32 as they at least inherit all the limitations of the claims from which they depend.

#### REJECTIONS UNDER U.S.C. §103(a)

The examiner has rejected dependent claims 3, 4, 11, 13, 18, and 29-31 as being unpatentable over DeMarcken. To be properly rejected under U.S.C. §103(a), each and every element of the claims must be addressed through known prior art or be recognized as an obvious variation thereof. Applicants contend that the DeMarcken reference fails to provide for the limitations of dependent claims 3, 4, 11, 13, 18, and 29-31.

As shown in the arguments above, applicants contend that the examiner has failed to show the anticipation of independent claims 1, 15, 20, and 33 in view of the DeMarcken reference. Hence, applicants respectfully request the examiner to reconsider the rejection with respect to dependent claims 3, 4, 11, 13, 18, and 29-31 as they at least inherit all the limitations of the claims from which they depend.

#### SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicants' presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

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As this amendment has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 12-0010.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicants' representative at the below number.

Respectfully submitted,



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